DROUGHT MONITORING TASK FORCE

Drought Status Report

January 22, 2008

Statewide precipitation for the previous water year (October 1, 2006 through September 30, 2007) was below normal (81% of normal). Statewide precipitation for the period from October 1, 2006 until January 17, 2008 was below normal (79% of normal) and statewide precipitation in each successive shorter time period is below normal. Statewide precipitation for the period from January 1, 2008 to January 17, 2008 is 52% of normal. Precipitation greater than 85% of normal is considered to be in the normal range. The following drought evaluation regions are currently below normal for the period beginning October 1, 2006; Big Sandy (73%), New River (80%), Roanoke (78%), Upper James (83%), Middle James (81%), Shenandoah (82%), Northern Virginia (78%), Northern Piedmont (72%), Chowan (84%), Northern Coastal Plain (78%), York-James (76%) and Southeast Virginia (84%). Precipitation deficits across the Commonwealth remained relatively stable in all drought evaluation regions since the last report. All drought evaluation regions now have accumulated precipitation deficits that represent below normal conditions except the Eastern Shore (93%). Appendix A contains precipitation tables for periods dating to October 1, 2006. The long-range monthly climatologic outlook calls for above normal temperatures statewide and below normal precipitation for the eastern half of the Commonwealth through February of 2008. The long-range seasonal outlook calls for above normal temperatures for the entire Commonwealth through April 2008. The long-range seasonal outlook calls for equal chances of below normal, normal and above normal precipitation for the area west of the Blue Ridge and below normal precipitation for the remainder of the Commonwealth through April 2008.

The latest NOAA drought monitor indicates the occurrence of drought conditions throughout the majority of the Commonwealth and is included as Appendix B. Appendix C contains information from the national drought monitor with only Virginia displayed. Drought conditions have remained relatively stable over the Commonwealth during the last month. Areas of exceptional drought in southwest Virginia have improved one drought category and are not rated as extreme drought. The NOAA seasonal drought outlook through April 2008 indicates that drought conditions may improve in the majority of the Commonwealth with the potential for minor improvement in southeast Virginia. The seasonal drought outlook is included as Appendix D.

Seven day average streamflows for January 21 in the majority of the Commonwealth are below normal (10^{th} to 24^{th} percentiles) with some areas in south central Virginia, southeast Virginia, the Middle Peninsula, and Northern Neck in the range of flows indicative of moderate hydrologic drought (6^{th} to 9^{th} percentiles) to severe hydrologic drought ($< 5^{th}$ percentile). Stream flows reacted positively to falling temperatures and the resultant reduction in evapotranspiration and will likely remain stable until the beginning of the growing season.. While drought monitoring ground water levels data is scarce, ground water levels are generally in the lower range of expected water levels in areas east of Route 95 and are generally lower than normal in the area west of Route 95. Five dedicated drought monitoring wells are at levels indicative of moderate hydrologic drought (10^{th} to 24^{th} percentiles) and eight are at levels indicative of severe hydrologic drought ($< 10^{th}$ percentile). More importantly ground water levels in the majority of dedicated monitoring wells have either remained stable of continued to decline during a period when ground water levels are expected to rise indicating ground water recharge. Preliminary indications are that there will be little ground water recharge during the winter of 2007-2008. Levels of most large reservoirs have rebounded over the last month and are expected to fill before spring with the exception of Lake Anna which continues to be significantly lower than normal.

While the Virginia Department of Health has not reported any impacts to public water supplies that have compromised their ability to provide the needs of their customers 31 systems have initiated voluntary water conservation requirements and 13 systems have initiated mandatory water conservation requirements. The reduction in conservation requirements is likely reflective of decrease water demands during the winter season and it is likely Appendix E contains a table of waterworks that have initiated water conservation requirements.

The Department of Forestry reports that light wildfire activity has continued during the month of January. This is above normal wildfire activity and may portend increased activity during the spring wildfire season. Since January 1, 2008 the DOF has responded to 32 wildfires which have burned 194 acres.

The Department of Game and Inland Fisheries reports no significant change in the past month in stream flows or reservoir levels related to recreational activities. Recreation has been impacted minimally however due to the limited seasonal demand. All boat access ramps are open in spite of the lower water levels. Stocking of trout continues on schedule. The trout raised in Department facilities are smaller then average due to the prolonged drought. Significant winter/spring precipitation events are needed to provide adequate recreational opportunity and aquatic habitat during the spring fishing and fish spawning period.

The intensity of drought impacts has continued to decline during the last month due to the end of the active growing season. Current moisture deficits coupled with a dry winter could result in significant drought impacts across all socio-economic sectors in the spring of 2008.

Reports from the Climatology Office of the University of Virginia, the Virginia Department of Agriculture and Consumer Services, the Virginia Department of Environmental Quality, the United States Geological Survey, and the Virginia Department of Forestry follow.

Report of the Climatology Office of the University of Virginia

Continued winter storm activity in late December brought statewide precipitation totals into the normal range for the month. Despite the Commonwealth's first widespread snowfall event of the season, the resulting precipitation amounts were insufficient to push totals for early January much past 50% of normal in all but one Drought Region.

Upper-air circulation has continued to keep winter storms on track for Virginia. Forecasts for the next two weeks indicate a continuation of this trend with above normal precipitation. Longer-range forecasts (February and February through April) indicate below normal precipitation for most of the state.

As has been emphasized in previous reports, precipitation during the colder months of the year is critical to the moisture status throughout the upcoming growing season. An analysis of the long-term climatological records was performed to estimate the probability of receiving threshold statewide average precipitation totals between now and the end of March.

Based upon that analysis, the current probability that the statewide average precipitation total for the period October 2007 through March 2008 will reach a normal level is less than 15 percent. The probability of reaching 85% of normal (low end of the "normal range") is about 60-percent. This does not indicate the likely distribution of precipitation across the individual Drought Regions.

The actual amount of precipitation which would be required to make up for existing deficits and achieve a normal level of moisture reserves is uncertain. Nonetheless, the shrinking probability of reaching even the normal level of precipitation for the period does not bode well for drought impacts during 2008.

Virginia Department of Agriculture and Consumer Services
Status of Agricultural Drought

Overview

According to the USDA crop weather report released on January 7, 2008, topsoil moisture was adequate. Producers are concerned about low subsoil moisture and the dry trend does not help prospects for the 2008 growing season. Hay is still short in supply and farmers continue to struggle with the shift in economics coming from skyrocketing values for hay and fertilizer.

Impact on Crops:

Nursery/Horticulture:

- Virginia's nursery and landscape industry is no longer suffering direct drought damage since most outside plants have gone dormant for the winter. However, the full damage to surviving plants will not become evident until this spring when the plants break dormancy. Drought damage to many plant root systems will not allow for the vigorous spring growth of leaves necessary for sustained plant health. Many plants will die this spring from the drought effects they suffered last fall. Hopefully nurserymen and landscapers will have sufficient healthy plant material to meet the anticipated volume of increased business required to repair or replace homeowner's drought damaged landscaping.

Hay Crop:

- As a result of the hay shortages caused by the 2007 drought, the Virginia Tobacco Indemnification and Community Revitalization Commission has allocated $500,000.00 to livestock producers in the Southwest Virginia counties of Bland, Buchanan, Carroll, Dickenson, Grayson, Lee, Scott, Smyth, Tazewell, Washington, Wise, and Wythe.

Impact on Livestock:

- Snow and ice early in December forced livestock producers to suspend pasture grazing their livestock for about a week. Feed supplies for livestock continue to be tight as stored feed is being depleted and could be non-existent by spring if these supplies are not purchased soon.

Disaster Designations

Due to the extreme agricultural drought, 93 Virginia counties and 34 independent cities have received a Secretarial disaster designation as primary natural disaster areas in 2007. York and Arlington counties and the independent cities of Alexandria, Bristol, Falls Church, Poquoson, and Norton were named contiguous disaster areas.

Waivers for Hauling of Emergency Supplies

At the request of the Department of Agriculture and Consumer Services, the Department of Transportation and Department of Motor Vehicle have jointly authorized a temporary waiver of registration and license requirements along with normal weight and width restrictions for the hauling of hay and feed to the counties that have been designated natural disaster areas by the U.S. Secretary of Agriculture. The waiver also pertains to contiguous counties. In addition, the Department of Emergency Management has authorized appropriate motor carrier exemptions to hours worked as prescribed by the Code of Federal Regulations and corresponding state regulations throughout the Commonwealth for carriers transporting emergency supplies destined for the affected localities. Both waivers became effective at 6 a.m. on August 11 and will remain in effect through April 15, 2008.

Virginia Department of Environmental Quality
Condition of Major Reservoirs

Reservoir conditions have generally improved over the past month and we appear to be on track to bring back major lake levels to their normal elevations by spring. The slowest lake to respond has been Lake Anna due to its relatively small watershed.

Lake Moomaw in western Virginia has gained back 43% of its conservation pool in the past month and now stands at 73% full. The lake is on track to fill before spring. When it does refill, the lake will probably return to normal operations. Inflow during the spring normally exceeds minimum releases because the reservoir passes inflow after it reaches full pool. Variances to the minimum flows remain in place at this time to insure that refilling occurs. The project is releasing only 100 cubic feet of water per second to the Jackson River.

Kerr Reservoir is at 295.9 feet, close to guide curve and 1.2 feet higher than a month ago. The Southeastern Power Administration is making the minimum amount of hydroelectric power to fulfill their contracts. The other Corps of Engineers Lake, Lake Philpott, is at 965.6 feet, still 2 feet below guide curve. Lake Philpott has risen five feet in the past month.

Smith Mountain Lake is at 793.9 feet; 1.1 feet below full. The lake has gained one foot in the past month. The lake level is currently steady. The project is operating under variance and is currently releasing 350 cfs instead of the normal release of 650 cfs. The variance has been in effect for five months, saving about 4.4 feet of water over the normal release. Because of early action by the State, the lake is only one foot down and should refill by spring.

The system of reservoirs owned by Rivanna Water and Sewer Authority is currently 93% full, having gained 5% in the past month. This drought warning has been lifted.

Last week Lake Anna was at 247.8 feet msl, 2.2 feet below full and releasing the drought contingency plan minimum flow of 20 cfs as required by the existing Flow Measurement Design Plan and Operations Manual.

United States Geological Survey
Streamflow and Ground Water Levels

Streamflow in the western portions of the State (Valley and Ridge and Appalachian Plateaus) are generally in the normal to just below normal range. This represents a significant improvement in streamflow conditions for southwest Virginia. Streamflows in the Piedmont and Coastal plain are generally well below normal for this time of year. Water-table wells are a mix with the majority below normal. The disturbing fact is that most well levels have not started their winter recovery that would be expected to begin in early to mid December. This delay of ground water recharge is thought to be due to last fall's warmer than normal temperatures and the resultant late leaf fall. All indications are that recent rainfall has reduced soil moisture deficit and ground-water recharge will not occur until these deficits are eliminated. The monthly and seasonal temperature outlooks indicate higher than normal temperatures for the entire Commonwealth which may result in an early spring green-up and early leaf out. If we experience an early spring there will be little opportunity for ground water recharge to occur.

Precipitation in the next two months will be critical for reducing the effect of drought this spring and summer. Streamflow conditions based on daily values for January 21 are presented in Appendix F. Area summaries of 7-day average streamflows from the USGS drought watch web page show similar flow conditions and are presented in Appendix G. Current conditions are generally lower than depicted by seven day average stream flows as flows continue to decline. Ground water levels based on conditions on January 21 are presented in Appendix H.

Department of Forestry

The Virginia Department of Forestry reports that through January 17th, the agency has responded to 32 fires which have burned 294 acres. This activity is above average for this time of year and indicative of the drier than normal conditions across the Commonwealth.

The obvious concern is how current conditions may impact wildfire potential during the month of February and what that may mean for Virginia's spring wildfire season. All indications are that the Commonwealth will experience a higher than normal number of fires this spring and the agency is ready to respond as necessary.

The DOF also reports concern over secondary drought effects such as a continued upward trend for forest pest outbreaks such as Gypsy Moth and Southern Pine Beetle and also concerns with higher than normal tree seedling mortality following the spring planting season. More than 18 million seedlings are planted in Virginia each year and poor survival as a result of extended dry conditions can create major economic impacts lasting for many years.

APPENDIX A

Precipitation departures by Drought Evaluation Region.

PRELIMINARY PRECIPITATION SUMMARY

Prepared: 01/19/08

	DROUGHT REGION	OBSERVED	Jan 1, 2008 NORMAL	- Jan 17, 2008 DEPARTURE	% OF NORM.
1	Big Sandy	2.24	2.05	0.19	110%
2	New River	0.97	1.76	-0.79	55%
3	Roanoke	0.81	2.15	-1.34	38%
4	Upper James	1.08	1.80	-0.72	60%
5	Middle James	0.76	2.01	-1.25	38%
6	Shenandoah	0.91	1.56	-0.65	58%
7	Northern Virginia	1.12	1.80	-0.68	62%
8	Northern Piedmont	0.92	1.93	-1.01	48%
9	Chowan	0.68	2.25	-1.57	30%
10	Northern Coastal Plain	1.11	2.06	-0.95	54%
11	York-James	0.93	2.27	-1.34	41%
12	Southeast Virginia	0.65	2.28	-1.63	28%
13	Eastern Shore	1.13	1.95	-0.82	58%
	Statewide	1.03	2.00	-0.97	52%

	DROUGHT REGION	OBSERVED	Dec 1, 2007 NORMAL	- Jan 17, 2008 DEPARTURE	% OF NORM.
1	Big Sandy	5.25	5.69	-0.43	92%
2	New River	3.55	4.47	-0.93	79%
3	Roanoke	4.03	5.40	-1.37	75%
4	Upper James	4.19	4.75	-0.56	88%
5	Middle James	3.49	5.18	-1.69	67%
6	Shenandoah	3.86	4.15	-0.30	93%
7	Northern Virginia	4.16	4.90	-0.74	85%
8	Northern Piedmont	4.12	5.21	-1.09	79%
9	Chowan	4.82	5.27	-0.45	91%
10	Northern Coastal Plain	3.86	5.34	-1.48	72%
11	York-James	5.04	5.66	-0.62	89%
12	Southeast Virginia	4.31	5.46	-1.16	79%
13	Eastern Shore	5.70	5.19	0.51	110%
	Statewide	4.16	5.12	-0.96	81%

	DROUGHT REGION	OBSERVED	Nov 1, 2007 NORMAL	- Jan 17, 2008 DEPARTURE	% OF NORM.
1	Big Sandy	6.93	8.97	-2.04	77%
2	New River	4.20	7.50	-3.30	56%
3	Roanoke	4.50	8.76	-4.26	51%
4	Upper James	4.71	8.11	-3.40	58%
5	Middle James	4.08	8.69	-4.60	47%
6	Shenandoah	4.99	7.20	-2.21	69%
7	Northern Virginia	5.78	8.31	-2.53	70%
8	Northern Piedmont	5.12	9.01	-3.89	57%
9	Chowan	5.33	8.38	-3.06	64%
10	Northern Coastal Plain	5.00	8.48	-3.48	59%
11	York-James	5.86	9.03	-3.17	65%
12	Southeast Virginia	4.87	8.53	-3.66	57%
13	Eastern Shore	6.54	8.13	-1.59	80%
	Statewide	5.01	8.35	-3.34	60%

	DROUGHT REGION	OBSERVED	Oct 1, 2007 NORMAL	- Jan 17, 2008 DEPARTURE	% OF NORM.
1	Big Sandy	8.66	11.85	-3.18	73%
2	New River	8.04	10.67	-2.63	75%
3	Roanoke	8.45	12.47	-4.02	68%
4	Upper James	7.08	11.36	-4.28	62%
5	Middle James	7.99	12.53	-4.54	64%
6	Shenandoah	7.39	10.39	-3.00	71%
7	Northern Virginia	9.44	11.79	-2.35	80%
8	Northern Piedmont	7.62	13.00	-5.38	59%
9	Chowan	8.42	11.96	-3.54	70%
10	Northern Coastal Plain	10.37	11.99	-1.62	87%
11	York-James	9.70	12.56	-2.86	77%
12	Southeast Virginia	10.14	12.19	-2.05	83%
13	Eastern Shore	9.91	11.34	-1.44	87%
	Statewide	8.40	11.85	-3.45	71%

	DROUGHT REGION	OBSERVED	Sep 1, 2007 NORMAL	- Jan 17, 2008 DEPARTURE	% OF NORM.
1	Big Sandy	9.91	15.31	-5.39	65%
2	New River	9.68	14.08	-4.40	69%
3	Roanoke	10.53	16.70	-6.17	63%
4	Upper James	9.33	14.86	-5.53	63%
5	Middle James	8.80	16.66	-7.86	53%
6	Shenandoah	9.34	14.06	-4.72	66%
7	Northern Virginia	10.61	15.86	-5.25	67%
8	Northern Piedmont	8.61	17.28	-8.67	50%
9	Chowan	9.39	16.39	-7.01	57%
10	Northern Coastal Plain	11.61	16.08	-4.46	72%
11	York-James	11.60	17.46	-5.86	66%
12	Southeast Virginia	10.87	16.62	-5.75	65%
13	Eastern Shore	11.47	14.95	-3.49	77%
	Statewide	9.82	15.85	-6.03	62%

	DROUGHT REGION	OBSERVED	Aug 1, 2007 NORMAL	- Jan 17, 2008 DEPARTURE	% OF NORM.
1	Big Sandy	11.10	19.14	-8.04	58%
2	New River	10.87	17.39	-6.52	63%
3	Roanoke	11.36	20.42	-9.06	56%
4	Upper James	10.77	18.19	-7.42	59%
5	Middle James	11.52	20.48	-8.96	56%
6	Shenandoah	12.11	17.39	-5.28	70%
7	Northern Virginia	12.47	19.71	-7.24	63%
8	Northern Piedmont	10.99	21.10	-10.11	52%
9	Chowan	11.40	20.70	-9.31	55%
10	Northern Coastal Plain	13.06	19.94	-6.88	66%
11	York-James	13.93	22.33	-8.41	62%
12	Southeast Virginia	14.35	21.74	-7.40	66%
13	Eastern Shore	13.96	18.82	-4.86	74%
	Statewide	11.69	19.68	-7.99	59%

	DROUGHT REGION	OBSERVED	Jul 1, 2007 NORMAL	- Jan 17, 2008 DEPARTURE	% OF NORM.
1	Big Sandy	15.59	23.62	-8.03	66%
2	New River	13.80	21.18	-7.38	65%
3	Roanoke	14.63	24.81	-10.18	59%
4	Upper James	13.11	22.23	-9.12	59%
5	Middle James	13.87	24.89	-11.01	56%
6	Shenandoah	14.11	21.15	-7.04	67%
7	Northern Virginia	14.94	23.48	-8.54	64%
8	Northern Piedmont	12.52	25.50	-12.98	49%
9	Chowan	14.45	25.21	-10.76	57%
10	Northern Coastal Plain	14.48	24.39	-9.91	59%
11	York-James	17.37	27.43	-10.06	63%
12	Southeast Virginia	17.66	26.81	-9.16	66%
13	Eastern Shore	16.05	22.82	-6.77	70%
	Statewide	14.42	24.02	-9.60	60%

	DROUGHT REGION	OBSERVED	Jun 1, 2007 NORMAL	- Jan 17, 2008 DEPARTURE	% OF NORM.
1	Big Sandy	18.33	27.76	-9.42	66%
2	New River	16.84	25.03	-8.19	67%
3	Roanoke	17.56	28.70	-11.14	61%
4	Upper James	16.87	25.94	-9.07	65%
5	Middle James	17.23	28.40	-11.17	61%
6	Shenandoah	17.39	24.86	-7.48	70%
7	Northern Virginia	16.88	27.34	-10.46	62%
8	Northern Piedmont	14.67	29.51	-14.84	50%
9	Chowan	16.67	28.86	-12.20	58%
10	Northern Coastal Plain	16.33	27.95	-11.61	58%
11	York-James	19.56	30.84	-11.29	63%
12	Southeast Virginia	20.88	30.42	-9.55	69%
13	Eastern Shore	21.30	25.80	-4.50	83%
	Statewide	17.28	27.81	-10.53	62%

	DROUGHT REGION	OBSERVED	May 1, 2007 NORMAL	- Jan 17, 2008 DEPARTURE	% OF NORM.
1	Big Sandy	20.08	32.58	-12.50	62%
2	New River	18.62	29.24	-10.62	64%
3	Roanoke	19.53	33.03	-13.50	59%
4	Upper James	18.89	30.22	-11.33	63%
5	Middle James	19.69	32.64	-12.95	60%
6	Shenandoah	19.57	28.70	-9.13	68%
7	Northern Virginia	18.14	31.68	-13.54	57%
8	Northern Piedmont	16.76	33.73	-16.97	50%
9	Chowan	19.55	32.95	-13.40	59%
10	Northern Coastal Plain	17.58	32.11	-14.53	55%
11	York-James	21.11	35.11	-14.00	60%
12	Southeast Virginia	22.84	34.28	-11.44	67%
13	Eastern Shore	23.04	29.32	-6.28	79%
	Statewide	19.31	32.07	-12.76	60%

	DROUGHT REGION	OBSERVED	Apr 1, 2007 NORMAL	- Jan 17, 2008 DEPARTURE	% OF NORM.
1	Big Sandy	24.55	36.34	-11.79	68%
2	New River	21.74	32.79	-11.05	66%
3	Roanoke	22.74	36.83	-14.09	62%
4	Upper James	22.39	33.62	-11.23	67%
5	Middle James	22.92	35.98	-13.06	64%
6	Shenandoah	23.15	31.62	-8.47	73%
7	Northern Virginia	21.87	34.98	-13.11	63%
8	Northern Piedmont	19.86	37.02	-17.16	54%
9	Chowan	23.99	36.38	-12.40	66%
10	Northern Coastal Plain	21.29	35.20	-13.91	60%
11	York-James	25.15	38.41	-13.26	65%
12	Southeast Virginia	27.36	37.53	-10.18	73%
13	Eastern Shore	27.59	32.24	-4.65	86%
	Statewide	22.95	35.49	-12.54	65%

	DROUGHT REGION	OBSERVED	Mar 1, 2007 NORMAL	- Jan 17, 2008 DEPARTURE	% OF NORM.
1	Big Sandy	27.68	40.59	-12.90	68%
2	New River	25.77	36.46	-10.69	71%
3	Roanoke	26.43	41.10	-14.67	64%
4	Upper James	26.03	37.41	-11.38	70%
5	Middle James	25.97	40.04	-14.06	65%
6	Shenandoah	26.03	34.82	-8.79	75%
7	Northern Virginia	25.02	38.64	-13.62	65%
8	Northern Piedmont	22.29	40.83	-18.54	55%
9	Chowan	26.56	40.75	-14.20	65%
10	Northern Coastal Plain	24.10	39.48	-15.38	61%
11	York-James	26.87	43.10	-16.23	62%
12	Southeast Virginia	29.30	41.73	-12.43	70%
13	Eastern Shore	29.37	36.55	-7.18	80%
	Statewide	26.02	39.53	-13.51	66%

	DROUGHT REGION	OBSERVED	Feb 1, 2007 NORMAL	- Jan 17, 2008 DEPARTURE	% OF NORM.
1	Big Sandy	29.08	44.17	-15.09	66%
2	New River	27.42	39.39	-11.97	70%
3	Roanoke	28.48	44.41	-15.93	64%
4	Upper James	28.48	40.26	-11.78	71%
5	Middle James	27.95	43.16	-15.21	65%
6	Shenandoah	28.08	37.23	-9.15	75%
7	Northern Virginia	27.86	41.31	-13.45	67%
8	Northern Piedmont	24.73	43.80	-19.07	56%
9	Chowan	28.72	43.92	-15.20	65%
10	Northern Coastal Plain	26.60	42.62	-16.01	62%
11	York-James	28.62	46.63	-18.02	61%
12	Southeast Virginia	31.56	45.23	-13.67	70%
13	Eastern Shore	32.16	39.74	-7.58	81%
	Statewide	28.11	42.66	-14.55	66%

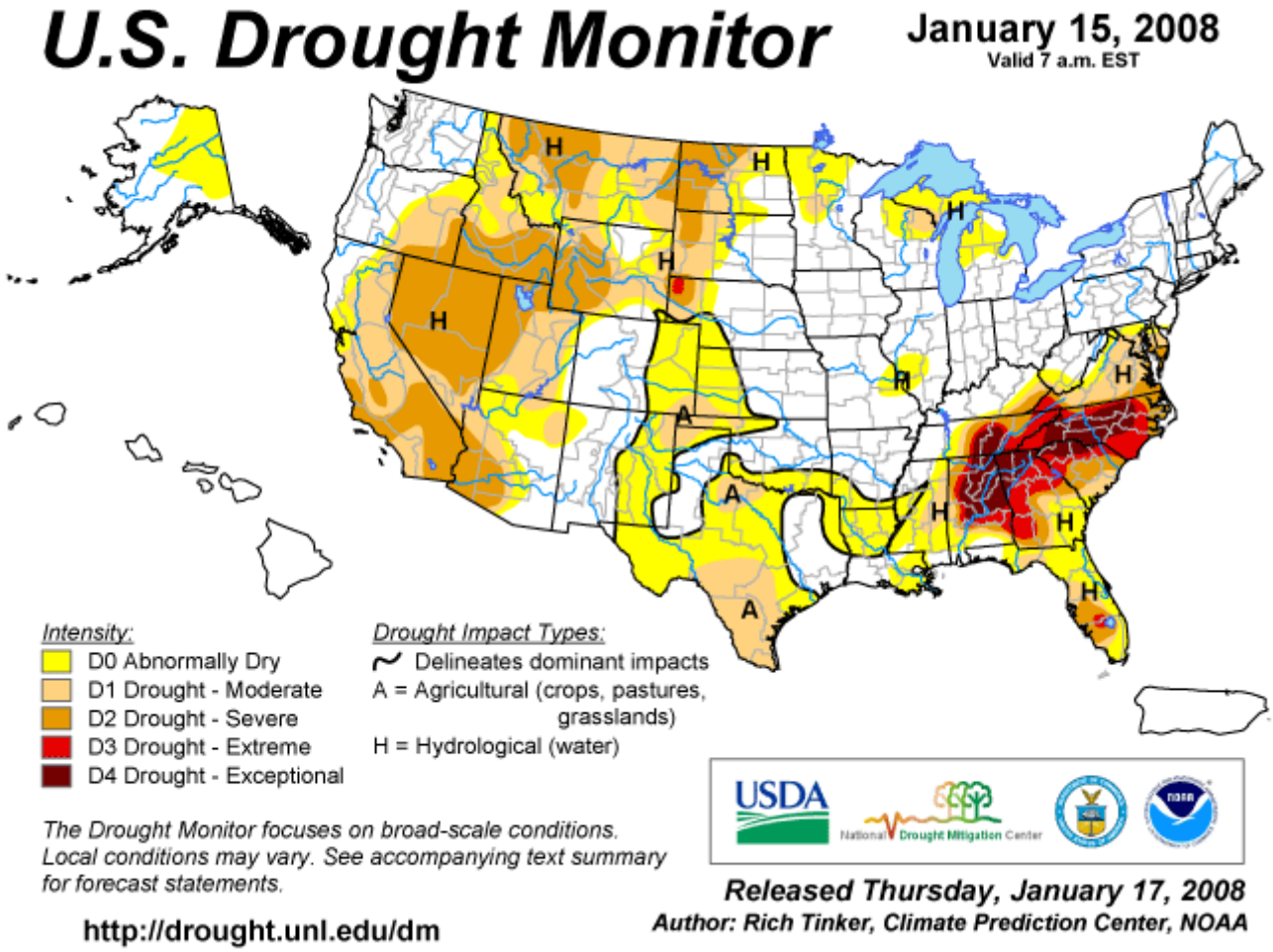
	DROUGHT REGION	OBSERVED	Jan 1, 2007 NORMAL	- Jan 17, 2008 DEPARTURE	% OF NORM.
1	Big Sandy	32.26	47.90	-15.63	67%
2	New River	30.38	42.60	-12.22	71%
3	Roanoke	32.36	48.33	-15.97	67%
4	Upper James	31.49	43.54	-12.05	72%
5	Middle James	31.52	46.82	-15.30	67%
6	Shenandoah	29.64	40.08	-10.44	74%
7	Northern Virginia	30.11	44.59	-14.48	68%
8	Northern Piedmont	27.25	47.32	-20.07	58%
9	Chowan	31.25	48.03	-16.79	65%
10	Northern Coastal Plain	30.84	46.37	-15.52	67%
11	York-James	31.23	50.77	-19.55	62%
12	Southeast Virginia	34.73	49.39	-14.66	70%
13	Eastern Shore	34.33	43.30	-8.97	79%
	Statewide	31.17	46.30	-15.13	67%

	DROUGHT REGION	OBSERVED	Dec 1, 2006 NORMAL	- Jan 17, 2008 DEPARTURE	% OF NORM.
1	Big Sandy	34.26	51.54	-17.28	66%
2	New River	32.17	45.31	-13.14	71%
3	Roanoke	34.54	51.58	-17.04	67%
4	Upper James	33.48	46.49	-13.01	72%
5	Middle James	33.11	49.99	-16.88	66%
6	Shenandoah	30.77	42.67	-11.91	72%
7	Northern Virginia	31.77	47.69	-15.92	67%
8	Northern Piedmont	29.00	50.60	-21.60	57%
9	Chowan	33.41	51.05	-17.64	65%
10	Northern Coastal Plain	32.55	49.65	-17.10	66%
11	York-James	33.05	54.16	-21.12	61%
12	Southeast Virginia	37.18	52.57	-15.39	71%
13	Eastern Shore	37.08	46.54	-9.46	80%
	Statewide	33.02	49.42	-16.40	67%

	DROUGHT REGION	OBSERVED	Nov 1, 2006 NORMAL	- Jan 17, 2008 DEPARTURE	% OF NORM.
1	Big Sandy	37.01	54.82	-17.81	68%
2	New River	36.12	48.34	-12.22	75%
3	Roanoke	39.93	54.94	-15.01	73%
4	Upper James	37.26	49.85	-12.59	75%
5	Middle James	38.84	53.50	-14.66	73%
6	Shenandoah	34.91	45.72	-10.81	76%
7	Northern Virginia	37.56	51.10	-13.53	74%
8	Northern Piedmont	35.30	54.40	-19.10	65%
9	Chowan	40.79	54.16	-13.38	75%
10	Northern Coastal Plain	37.85	52.79	-14.94	72%
11	York-James	38.71	57.53	-18.82	67%
12	Southeast Virginia	44.80	55.64	-10.84	81%
13	Eastern Shore	41.96	49.48	-7.53	85%
	Statewide	38.18	52.65	-14.47	73%

	DROUGHT REGION	OBSERVED	Oct 1, 2006 NORMAL	- Jan 17, 2008 DEPARTURE	% OF NORM.
1	Big Sandy	41.98	57.70	-15.71	73%
2	New River	41.11	51.51	-10.40	80%
3	Roanoke	45.97	58.65	-12.68	78%
4	Upper James	44.19	53.10	-8.91	83%
5	Middle James	46.53	57.34	-10.81	81%
6	Shenandoah	40.16	48.91	-8.76	82%
7	Northern Virginia	42.35	54.58	-12.23	78%
8	Northern Piedmont	41.83	58.39	-16.56	72%
9	Chowan	48.49	57.74	-9.26	84%
10	Northern Coastal Plain	43.92	56.30	-12.37	78%
11	York-James	46.71	61.06	-14.35	76%
12	Southeast Virginia	49.87	59.30	-9.43	84%
13	Eastern Shore	48.89	52.69	-3.80	93%
	Statewide	44.42	56.15	-11.73	79%

APPENDIX B


U.S. Drought Monitor
January 15, 2008
Valid 7 a.m. EST
Intensity:
D0 Abnormally Dry
D1 Drought - Moderate
D2 Drought - Severe
D3 Drought - Extreme
D4 Drought - Exceptional
Drought Impact Types:
Delineates dominant impacts
A = Agricultural (crops, pastures, grasslands)
H = Hydrological (water)
The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.
http://drought.unl.edu/dm
USDA
National Drought Mitigation Center
Released Thursday, January 17, 2008
Author: Rich Tinker, Climate Prediction Center, NOAA

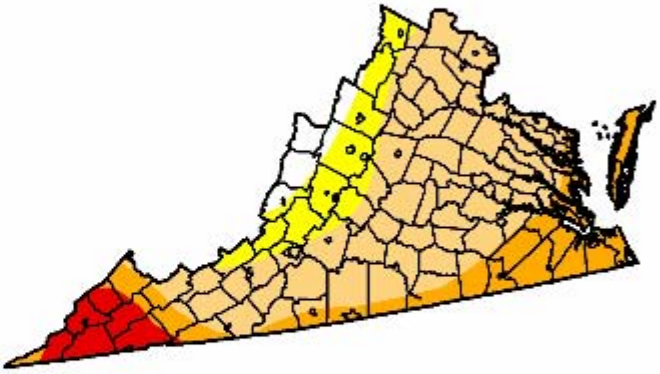
APPENDIX C

U.S. Drought Monitor
Virginia

January 15, 2008
Valid 7 a.m. EST

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	4.3	95.7	82.3	25.9	6.3	0.0
Last Week (01/08/2008 map)	7.8	92.2	78.9	27.3	9.2	6.3
3 Months Ago (10/23/2007 map)	0.0	100.0	93.4	84.6	50.5	5.0
Start of Calendar Year (01/01/2008 map)	8.0	92.0	74.8	27.3	9.2	6.3
Start of Water Year (10/02/2007 map)	0.1	99.9	92.7	76.4	25.0	5.0
One Year Ago (01/16/2007 map)	95.2	4.8	0.0	0.0	0.0	0.0



Intensity:

- D0 Abnormally Dry
- D1 Drought - Moderate
- D2 Drought - Severe
- D3 Drought - Extreme
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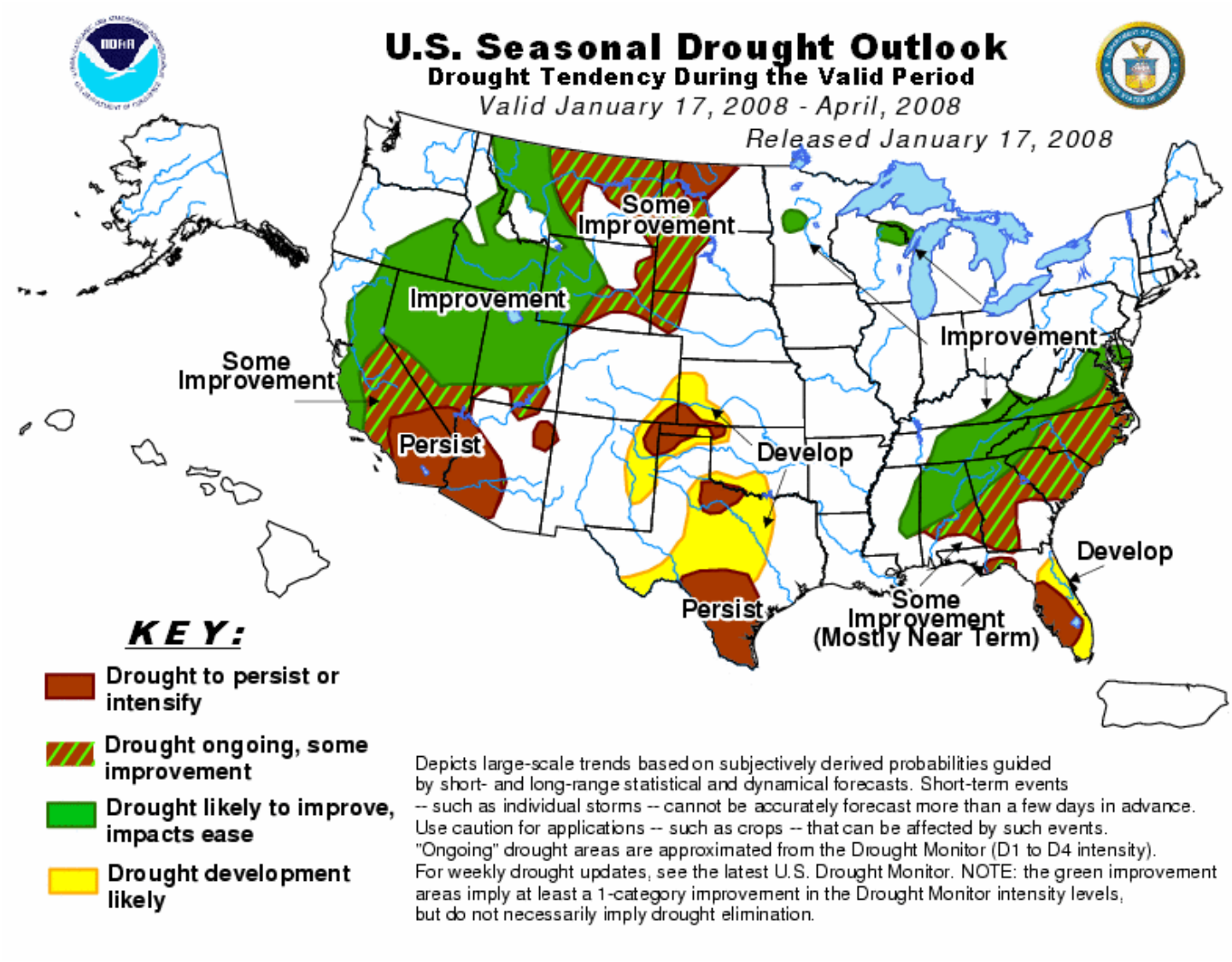
The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements

http://drought.unl.edu/dm

USDA National Drought Mitigation Center

Released Thursday, January 17, 2008
Author: Rich Tinker, CPC/NOAA

APPENDIX D


U.S. Seasonal Drought Outlook
Drought Tendency During the Valid Period
Valid January 17, 2008 - April, 2008
Released January 17, 2008
Some Improvement
Improvement
Some Improvement
Persist
Improvement
Develop
Persist
Develop
Some Improvement (Mostly Near Term)
KEY:
Drought to persist or intensify
Drought ongoing, some improvement
Drought likely to improve, impacts ease
Drought development likely
Depicts large-scale trends based on subjectively derived probabilities guided by short- and long-range statistical and dynamical forecasts. Short-term events -- such as individual storms -- cannot be accurately forecast more than a few days in advance. Use caution for applications -- such as crops -- that can be affected by such events. "Ongoing" drought areas are approximated from the Drought Monitor (D1 to D4 intensity). For weekly drought updates, see the latest U.S. Drought Monitor. NOTE: the green improvement areas imply at least a 1-category improvement in the Drought Monitor intensity levels, but do not necessarily imply drought elimination.

APPENDIX E
Condition of Public Water Supplies

ODW Drought Situation Report

Date: **1/17/08**

	Restriction totals
Mandatory	13
Voluntary	31
Total	**44**

N-None
M-Mandatory
V-Voluntary

B-Better
S-Stable/Same
W-Worse

PWSID	Waterworks	Source Name	Restrictions	Situation	Population Served
1071455	Giles County PSA	well	N	~~**S** 12/12/07: Well water level at 100 ft above pump at startup. Drops slightly during pumping. 10/05/07: started using secondary wells, Orchard & Tannery, to supplement. Still in good shape.~~ REMOVED FROM REPORT DUE TO ADEQUATE SUPPLY 1/11/08.	8,500
1077240	Town of Fries	Eagle Bottom Creek & New River	N	~~**S** 12/17/07: the Creek impoundment still overflowing. Creek flow back to normal fall weather rate. Their auxiliary New River withdrawal portable pump is ready to use if needed.~~ REMOVED FROM REPORT DUE TO ADEQUATE SUPPLY 1/11/08.	614
1105200	Town of Jonesville	Wynn Spring #1 and Slemp Spring	N	**S** 1/09/08: Springs' flowrates are stable. Normal WTP operating rate = 380 gpm; down to 300 gpm. WTP running 18 hrs/day. Using all of Wynne Spring production and part of the production of Slemp spring.	1,100
1105400	Lee County PSA	Blue Springs	N	**B** 01/11/08: Spring flow has increased significantly. Currently treating 244,800 gpd with a lot of flow-by. At this rate, tank levels are staying at about full.	2,500
1105400	Lee County PSA	KVS Quarry	N	**S** 01/11/08: Water level in quarry is rising; currently at 204 inches below catwalk . Level was 206 inches below catwalk on 01/08/08. In process of building a floating raw water pump station.	2,500
1155635	Town of Pulaski	Two impoundments and Peak Creek	N	**B** 1/11/07: Hogans Reservoir lowered to repair dam. Gatewood down 4 ft. Hogans down 15 ft. Working on drought response plan with NRV PDC/Kevin Byrd. This plan identified 20 ft down as the critical point for reservoir level. In good shape; may remove from drought report soon.	9,452

~~1167050~~	~~Russell County Water & Sewerage Authority~~	~~springs, wells, Clinch River~~	~~N~~	**S** 11/29/2007: ~~Source average monthly production reductions: Crystal well from 65 to 43 gpm; Sargent Spring from 200 to 80 gpm; Seven Spring well 1 from 24 to 15 gpm; Seven Springs from 200 to 77 gpm; Straight Hollow mines from 200 to 105 gpm. Purchasing supplemental water from St. Paul at an average of 20 gpm. Accountability increased from 40% in August to 54% in September. St. Paul has adequate surplus capacity to provide up to 50% of RCWSA average daily demand.~~ REMOVED FROM REPORT SINCE ST. PAUL HAS SUFFICIENT EXCESS CAPACITY TO SUPPLY DEMAND.	~~5,565~~
1169725	Town of Nickelsville	Wells	V	**S** 01/09/08: Well production had dropped and voluntary conservation notice issued 8/31/07. Well #1 is used occasionally now (about 4 hours/day). Well #3 drops to ~ 6 gpm(safe yield=13). Well #6 drops to ~8-10 gpm(safe yield=21 gpm). Well #5 began pumping muddy water on 01/06/08, however they have now decreased the pumping time to 8 - 9 hours/day and the well appears to be doing fine. Well #4 has no drop in output. Repairing leaks (accountability is satisfactory). Working on adding two new wells: (1) Park well's bacts were all negative. Park well now being used. (2) New Tank well is drilled and grouted; yield and drawdown done (28 gpm) and waiting on test results and the plans & Specs from engineer.	900
1185061	Town of Bluefield	impoundment of Bluestone River	N	~~**S** 12/17/07: Water levels remain steady since 11/01/07 report. The WTP is currently able to withdraw at its design capacity of 1.5 MGD.~~ REMOVED FROM REPORT DUE TO ADEQUATE SUPPLY AND AVAILABILITY OF BACKUP SOURCE FROM WEST VA. AMERICAN WATERWORKS 12/17/07.	6,138
1185625	Town of Pocahontas	Abbs Valley Creek	N	~~**S** 12/17/07: Removed call for voluntary conservation on 11/19/07. No change since 11/15/07 report. Flow in source water, Abbs Valley Creek is now overflowing the check dam. WTP operates 12 hours/day on average. It can be supplied by Greater Tazewell WTP if there is a need to reduce demand at Pocahonatas. Likewise the Greater Tazewell WTP could supplement supply to Pocahontas through an existing interconnection via the TCPSA Boissevain storage tank, which is 72 feet higher in elevation than the Pocahontas tanks.~~ REMOVED FROM REPORT DUE TO ADEQUATE WATER SUPPLY 01/11/08.	1,200

1185762	Greater Tazewell	Lake Witten, Clinch River, & impoundment of Cox Brance	N	~~**S** 12/17/07: Cox Branch and Clinch River flows restored to normal levels by recent rainfall. Lake Witten (main source) level still decreasing. PSA does not control use of Lake Witten for maintaining downstream flows. No current problems in meeting demand.~~ REMOVED FROM REPORT DUE TO ADEQUATE WATER SUPPLY 01/11/08.	11,964
1195050	Town of Appalachia	reservoir	**M**	**B** 01/09/08: down 15'-7.5" from overflow. 29 MG left, 64 days ± 10 left. Pumping from Powell River to reservoir @ approx. 350 gpm.	3,280
1195100	Town of Big Stone Gap	Big Cherry Reservoir	**M**	**B** 01/09/08: Reservoir down 17.5 ft from overflow. 130 MG left, 48 days, including 1 MGD for flow-by. Are preparing to construct a permanent emergency pump station to get 0.25 MGD of water from Pennington Gap via Dryden via Eastern Lee (are waiting on an easement issue to be resolved). At this time they are no longer considering construction of: the temporary pump station to get 0.15 MGD of water from Duffield; or the 1,500 ft for above ground temporary pipe to get 0.25 MGD of water from Wise County PSA via Norton. At this time, Big Stone Gap has not purchased any water.	9,000
1195950	Town of Wise	reservoir	N	**S** 01/09/08: Reservoir down 11.1 ft, 99 MG left, 165 days left (@ 0.6 MGD). Slightly below average for this time of year. Auxiliary mine well source being pumped into reservoir.	6,375
1720076	City of Norton	reservoirs	N	**S** 1/10/08: Upper reservoir down 19 ft; lower reservoir down 15.5 ft from overflow. 50.2 MG, approx 110 days left based on 0.45 MGD production. Purchasing more water from Wise County PSA. Worse than normal for this time of year.	4,247
2003250	Albemarle County / Crozet	Beaver Creek Reservoir	V	**B -** Beaver Creek Reservoir is currently down 1.4 feet from normal full. Drought Warning reduced to Watch 1/2/08	25
2003600	Charlottesville/Albemarle County	Sugar Hollow and Ragged Mountain Reservoirs (Observatory WTP)	V	**B** - The Sugar Hollow reservoir is down 3.8 feet from full. Ragged Mountain reservoir is 2.7 feet below full. Drought warning and mandatory restrictions in effect since August 15.	25
2003675	Albemarle County / Scottsville	Totier Creek Reservoir	V	**B -** The Totier Creek reservoir is full. Drought Warning reduced to Watch 1/2/08	25
2003725	Charlottesville/Albemarle County	South Fork Rivanna (South Rivanna WTP)	V	**B -** The South Fork Rivanna reservoir is full. Drought Warning reduced to Watch 1/2/08	25
2023730	Dal-Nita Hills	Drilled Well	V	**S** - Well yield has dropped to 4 to 5 gpm. Owner is hauling water, as needed, to keep storage tank full. Letter provided to the customers advising them of the situation.	35 homes
2043125	Berryville, Town of	Shenandoah River	V	**S -** Voluntary conservation requested on 11 December 2007.	2,965

2065250	Fluvanna Correctional Center for Women	Mechunk Creek and on-site Raw Water Reservoir	V	**B -** Reservoir is at ~88% of full capacity (~35 MG stored). Moderate Drought Condition continues though.	1,650
2069250	Frederick County Sanitation Authority	Stephens City and Clearbrook Quarries; City of Winchester	V	**S** - Voluntary conservation has been requested.	33,330
2125325	NCSA - Lovingston	Black Creek Reservoir and Wells	N	**B - All** restrictions lifted, Reservoir is full	900
2125065	NCSA - Gladstone	Spring	N	**B** - All restrictions lifted	90
2125650	NCSA - Schuyler	Johnson's Branch	N	**B** - All restrictions lifted	300
2125910	NCSA - Wintergreen	Lake Monacan	N	**B -** Lake Monacan system is full. All restrictions lifted.	3,800
2171750	Town of Strasburg	North Fork Shenandoah River	V	**S -** Voluntary conservation has been requested. Stream flow (14 day average) approx 246 cfs on 8 January.	4,017
2187406	Front Royal	South Fork Shenandoah River	V	**S -** Mean stream flow reported at 621 cfs on 8 January. VWPP requires conservation controls to be implemented at 24% (voluntary) and 17% (mandatory) of mean stream flow based on 14-day running average.	12,500
2560100	Town of Clifton Forge	Smith Creek	V	**S** - Voluntary conservation has been requested.	4,679
2660345	City of Harrisonburg	North River, Dry River/Switzer Reservoir (Rawley Springs)	V	**S** - Voluntary conservation has been requested. This has not been implemented as a result of limited low source water quantity, but rather at the request of the Governor's letter requesting conservation.	44,500
2840500	Winchester, City of	North Fork Shenandoah River	V	**S -** Voluntary conservation requested on 1 October. Stream flow (14 day average) approx 287 cfs on 8 January.	27,485
3053280	DCWA Central (Dinwiddie County)	Appomattox River Water Authority (ARWA)	N	**B - Lifted restrictions on 12/27/07.**	6,800
3081550	GCWSA - Jarratt	Nottoway River	N	**S** - Waterworks has increased work hours per day to decrease withdrawal rate, performed work at the intake to maximize capacity, and inquired about future use of existing inactive groundwater sources.	7,190
3093120	Isle of Wight County	Suffolk	V	**S** - follows Suffolk's lead on conservation.	1,284
3095490	JCSA Central	wells	N	**B** - No restrictions at this time.	44,760
3149700	Puddledock Road (Prince George County)	ARWA	N	**B - Lifted restrictions on 12/28/07.**	6,525
3550050	Chesapeake - Western Branch system	City of Portsmouth	V	**S** -This portion of the city is consecutive to (receives water from) the city of Portsmouth. City Council voted to go to voluntary conservation city-wide - it took effect on 24 Oct 2007. Still following Portsmouth's lead on conservation.	36,381

3550051	Chesapeake	Northwest River, City of Norfolk Raw Water (Lake Gaston)	V	**S** - City Council voted to go to voluntary conservation city-wide - took effect on 24 Oct 2007. Chlorides have lowered in river. Water level is not affected - river is tidally influenced. Waterworks testing use of alternate source (In Town Lakes) in case Norfolk unable to supply Lake Gaston WTP.	105,525
3550052	Chesapeake - South Norfolk system	City of Norfolk	V	**S** - This portion of the city is consecutive to (receives water from) the city of Norfolk. City Council voted to go to voluntary conservation city-wide - it took effect on 24 Oct 2007. Still following Norfolk's lead on conservation.	33,602
3570150	Colonial Heights	ARWA	N	**B - Lifted restrictions on 12/1/07.**	17,286
3595250	Emporia	Meherrin River	N	**S** - Water is going over the dam.	5,600
3670800	Virginia-American Water Company (Hopewell)	Appomattox & James Rivers	N	**S** - Raw water quality is biggest concern at this time as higher salinity is reaching the intake from the Bay.	25000 - Primary / 42463 Total including Consecutive System (Ft. Lee)
3700500	Newport News	Chickahomony River, Skiffs Creek, Diascand, Little Creek, Harwoods Mill, Lee Hall	N	**B -** reservoir levels are rising (1-15-08 at 77.5% full [up six % points]); waterworks still cautious, but feels the winter weather will allow the reserviors to refill.	406,000
3710100	Norfolk	Lake Prince, Lake Burnt Mills, Western Branch reservoir, Nottoway River, Blackwater River, 4 western wells; Little Creek reservoir, Lakes Smith, Lawson, Whitehurst, and Wright. Lake Gaston.	V	**B** - As of 01/14, reservoirs at 88.0% (up from 82.3% on 12/17). Historic reservoir capacity is 87.5%. Avg. pumping: Lake Gaston = 44.3 MGD; Blackwater River = 0 MGD; Nottoway River = 16.9 MGD; Deep wells = 3.82 MGD; Spillway elev.: Western Branch -3.0 ft; Lake Prince 0.1 ft; Burnt Mils -3.8 ft; Lake Wright 0 ft; Lake Smith +0.3 ft; Blackwater River +7.3 ft; Nottoway River +7.3 ft. Called for voluntary conservation 11/1/07.	261,250 - Primary / 755,617 - Total including consecutive systems (Va Beach + military bases).
3730750	Petersburg	ARWA	N	**B - Lifted restrictions on 1/8/08.**	39,386
3740600	Portsmouth	Lakes Cohoon, Meade, Kilby, and Speights Run	V	**B** - As of 01/11, reservoirs at 97% (up from 86% on 12/17). Median reservoir capacity is 100%, average capacity is 92% (period of 1969-2006). Both emergency wells are OFF. Estimated 239 days of reservoir storage remaining at current pumpage and no rainfall, up from 209 days on 12/17. Called for voluntary conservation on 10/10/07.	100,400 - Primary / 120,400 Total including consecutive systems (military bases)
3800805	Suffolk	Lone Star Lakes, Cumps Mill Pond	V	**S** - Will follow Portsmouth's lead and the region as far as conservation. As of 01/16/08-Reservoir levels look good. Crumps Mill Pond @ 15.6 ft (high) and Lone Star Lakes at 7.9 ft (normal).	62,562

3810900	Virginia Beach	Norfolk	V	**B** - obtains water from Norfolk. Called for voluntary conservation on 9/19/07.	423,743
4041035	APPOMATTOX RIVER WATER AUTHORITY	Surface water; Lake Chesdin	N	Wholesaler to Chesterfield County, Prince George County, Dinwiddie County; Cities of Petersburg and Colonial Heights. ~~Low water levels; mandatory & voluntary restrictions in place.~~	200,000
4041845	CHESTERFIELD CO CENTRAL WATER SYSTEM	Surface water; Swift Creek reservoir; purchases finished water	N	~~In effect Monday, Oct. 15.~~ purchases water from the City of Richmond and the Appomattox River Water Authority.	263,000
4057800	TAPPAHANNOCK, TOWN OF	Groundwater wells	N		2,100
4073311	GLOUCESTER CO WATER TREATMENT PLT	Surface water, Beaverdam reservoir; 2 deep groundwater wells	N	Reservoir at 100%.	8,870
4075283	EASTERN GOOCHLAND CENTRAL WATER SYSTEM	Purchased surface water	N	purchases water from Henrico County	2,500
4075735	JAMES RIVER CORRECTIONAL CTR	Surface water; James River	N		9,300
4085398	HANOVER SUBURBAN WATER SYSTEM	Surface water; North Anna River; some groundwater wells; purchases finished water	N		71,000
4085770	SPRING MEADOWS-MEADOW GATE	Groundwater wells	N		2,300
4087125	HENRICO COUNTY WATER SYSTEM	Surface water; James River	N	Similar to City of Richmond	289,000
4101900	WEST POINT, TOWN OF	Groundwater wells	N		3,000
4127110	DELMARVA PROPERTIES	Groundwater wells	V	New Kent Co. encourages conservation. Still in place.	7,700
4145675	POWHATAN COURTHOUSE	Groundwater wells	N		2,600
4193280	COLONIAL BEACH, TOWN OF	Groundwater wells	N		3,300
4760100	RICHMOND, CITY OF	Surface water; James River	N	~~Slightly~~ improved ~~(but still below normal)~~ water levels in the James River; under James River Regional Flow Management Plan; counties of Henrico, Chesterfield, Goochland, and Hanover counties purchases water from the City.	197,000
5515050	City of Bedford	Stoney Creek Reservoir and Wells 1 to 5	N	**B** - water level in reservoir back to normal	6,946

5143210	Town of Gretna	Georges Creek Res	N	**B**	2,500
5029085	Buckingham County	Troublesome Creek Reservoir	N	**S - The water level is about 1.5 inches over the spillway**	5,751
5037300	Town of Keysville	Keysville Reservoir	N	**S**	800
5083550	Town of Halifax	Bannister River Reservoir	N	**S**	1,389
5780600	Town of South Boston	Dan River	N	**S**	9,726
5141640	Town of Stuart	South Mayo River	N	**S**	1,500
5147170	Town of Farmville	Appomattox River	N	**S**	7,011
5011050	Town of Appomattox	Wells	V	**S** - The Town has noted a significant water level drop in many of their wells. The town is actively looking for additional groundwater sources.	1,708
5031150	Campbell County Central System	Big Otter River	N	**B** - stream flow at 72 cfs (well above plant capicity) and they also have an interconnection with Lynchburg.	20,000
5025450	Town of Lawrenceville	Great Creek (with upstream reservoir)	N	B - reservoir holding steady at normal level	4,806
5135160	Town of Crewe	Crystal Lake	N	**B**	3,500
5111450	Town of Kenbridge	Flat Rock Creek and Offstream Reservoir	N	**B** Reservoir water level has returned to normal.	1,400
5067785	Ridgscrest	Wells	N	**B** - no longer hauling water	52
5067265	Hales Point	Wells	V	**B** - system still hauling in some water to meet demand.	46
5067937	Stripers Landing	Wells	N	**B**	125
6033425	Lake Caroline	Lake Caroline	N	**S** - Lake level is steady	3,370
6047070	Emerald Hill Elementary School	Groundwater	N	**B - Well EHS-3 is onstream at a reliable production rate of 12 gpm. Well 1 has been reworked for improved production. Water hauling is no longer needed.**	977
6047500	Town of Culpeper	Lake Pelham	M	**B - Lake Pelham surface was 11 " below the overflow on 1/14/08. Town is on mandatory water use restriction until Lake Pelham reaches the overflow.**	14,200
6059501	Fairfax County Water Authority	Potomac River and Occoquan Reservoir	V	**B** - Fairfax Water has reduced withdrawals to about 75 MGD from Potomac River, limited by half of Corbalis WTP out of service (scheduled outages for construction of tie-ins), with the balance taken from Occoquan Reservoir. Potomac River flows have increased due to recent rains. Occoquan Reservoir is 100% full. FW is providing additional water to Prince William County Service Authority to make-up for supply and treatment cut-backs by the City of Manassas. Metro Washington area-wide voluntary conservation went into effect 10/3/07.	823,216

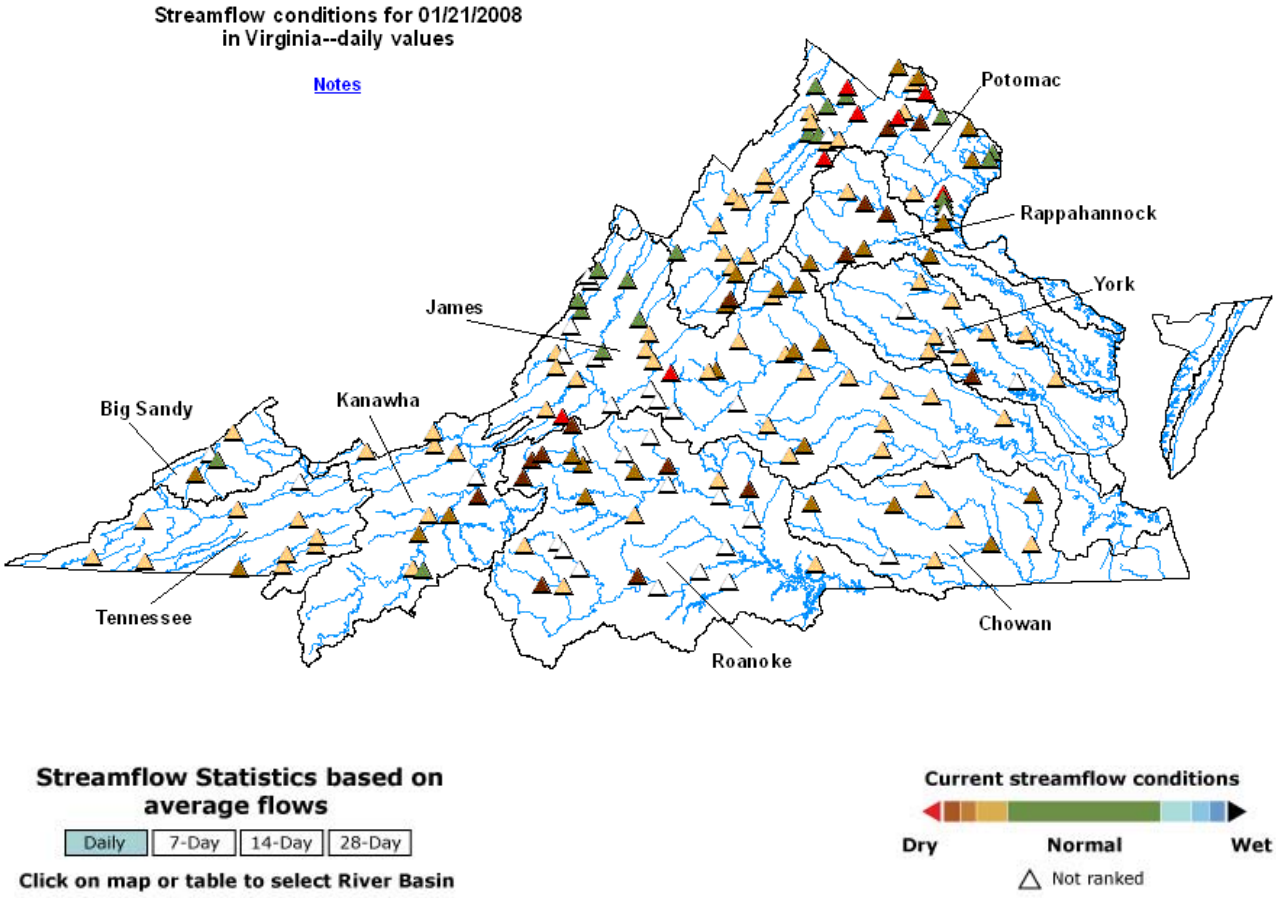
6061200	Town of Marshall	Groundwater	M	**S** - Well production not capable of meeting demands, including significant system leakage. Water being hauled in at approx 25,000 gpd. Owner (FCWSA) has performed some well work and is considering water line repairs/replacement and addition of new sources and storage. **As of 1/14/08, no change in status.**	2,134
6061600	Town of Warrenton	Reservoir on Cedar Run and groundwater	M	**S - Warrenton Reservoir surface elevation is at 440.1 feet vs full level at 445.3 feet. Reservoir level has been steady for the past 4 days up to 1/14/08**	11,160
6107150	Town of Hamilton	Groundwater	V	**S**	2,000
6107200	Town of Hillsboro	Spring/Well	M	**B - Flow in spring and well have increased and seems adequate to meet demand, except for one day in December. A leak in the distribution system is suspected. Arrangements have been made to haul water, but this has not been necessary.**	58
6107221	LCSA Lenah Farms	Groundwater	V	**S**	810
6107300	Town of Leesburg	Potomac River	N	**S** - Potomac River supply is adequate	37,000
6107350	Loudoun County Sanitation Authority	Purchase treated surface water from FCWA (Potomac River) and City of Fairfax (Goose Creek Reservoir)	M	**S** - Recent rains maintaining flow in Goose Creek, sufficient for 6 MGD treatment rate. LCSA moving water from 410 zone to 438 zone via pump station.	167,904
6107400	Town of Lovettsville	Groundwater	V	**S**	1,280
6107450	Town of Middleburg	Groundwater	M	**S - Mandatory Water Use Restrictions in place 10/11/07**	590
6107600	Town of Purcellville	Hirst Reservoir and groundwater	M	**S** -- Recent rains sufficient to increase water level in reservoir slightly, reservoir remains about 1/3 full. Reduced temperatures have reduced demand. Wells are being closely monitored and production remains consistent without any impacts from drought thus far. Town has reportedly reached agreement to purchase groundwater from nearby approved wells for use in surface water treatment plant.	6,300
6107650	Town of Round Hill	Groundwater	M	**S**	3,156
6113200	Town of Madison	White Oak Run	N	**S** -- Stream flow remains adequate to meet normal demands.	778
6137300	Rapidan Service Authority - Rt. 15	Purchase treated surface water from Town of Orange (Rapidan River)	N	**S** - **1/14/08 - Town of Orange raw water availability is well above minimum.**	273
6137400	Town of Gordonsville	Purchase treated surface water from RSA and Town of Orange	N	**S**--No water use restrictions are in place.	1,800

6137500	Town of Orange	Rapidan River	V	**S** - 1/14/08 **- Fourteen day running average of Rapidan River flow is 165 cfs (withdrawal restrictions are imposed below 44 cfs) Offstream raw water reservoir is full.**	4,500
6137999	Rapidan Service Authority - Wilderness and Lake of the Woods	Rapidan River	N	Rapidan River flow has been steady at an adequate level.	11,331
6153260	Woodbridge Mobile Home Park	Groundwater	M	**S** -- Waterworks continues to have episodes of low pressure due to inadequate sources and leaks in the distribution system. **This problem is indirectly related to drought as source problems existed previously.**	320
6153675	Quantico Marine Corps Base - Mainside	Breckenridge, Lunga, and Gray Reservoirs	N	**S**	14,525
6600100	City of Fairfax	Goose Creek Reservoir	V	**B** -- Adequate flows coming down Goose Creek. WTP is producing approx 6 MGD with approx 1 mgd of the treated water going to LCSA, balance to the City. No longer purchasing water from FCWA. Pumping into Beaver Dam Reservoir, which has risen about five feet due to pumping plus recent rains. Reservoir is still about 15 feet below full.	45,000
6685100	City of Manassas	Lake Manassas	M	**B** -- **Mandatory restrictions went into effect 10/25/07.** Water level in Lake Manassas has risen about two feet to about nine feet below the spillway due to recent rains. Withdrawals from Lake Manassas remain at about 5 - 6 mgd. Wholesale customers PWCSA and Manassas Park are not taking water from the City and are obtaining water from FCWA.	37,000
6177280 and 6177300	Spotsylvania County	Motts Run Reservoir, Rappahannock River, Ni River Reservoir, and Hunting Run Reservoir (Rapidan River off-stream reservoir)	N	**S**	37,506
6179100 and 6179775	Stafford County	Smith Lake and Abel Lake	M	**B** -- Marginally better. Mandatory restrictions went into effect 9/17/07 and were increased on 10/8/07. Currently remain on mandatory restriction.	53,086

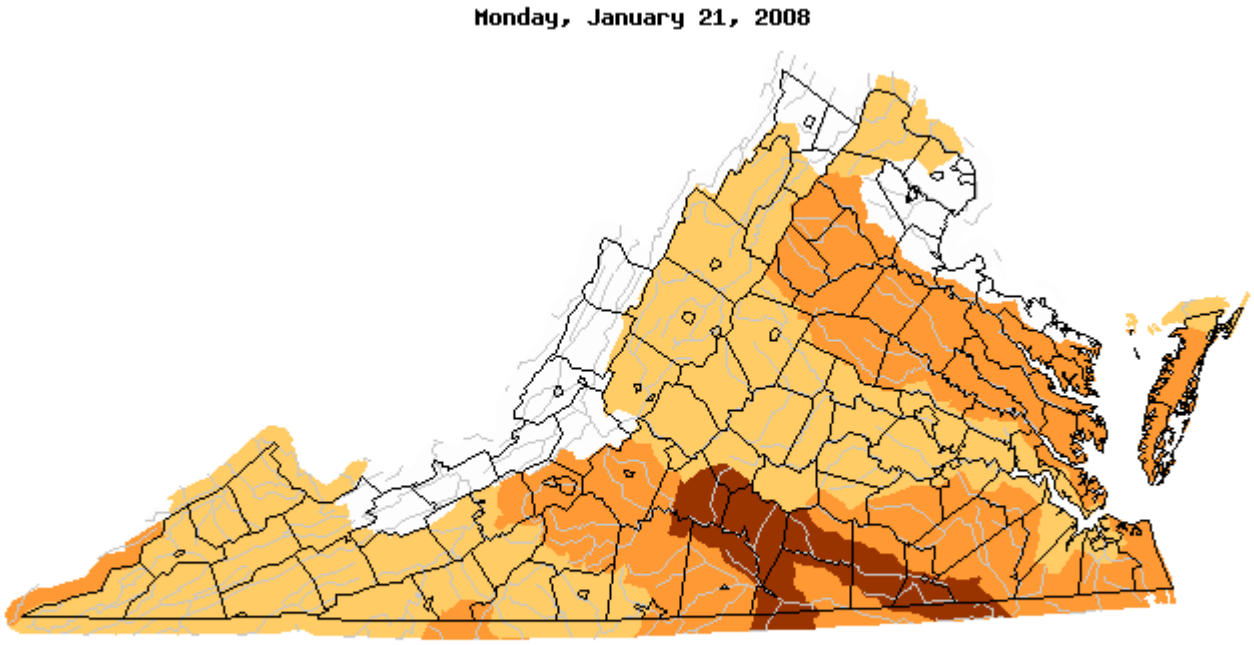
Notes of interest:
(1) Metropolitan Washington Council of Governments issued a region-wide voluntary conservation advisory on 10/3/07, covering DC, Maryland, and Northern Virginia.

(2) Interstate Commission on the Potomac River Basin (ICPRB) gathers meterological, drought, and water supply data from all of the major water suppliers in the Metro Washington area and determines the need for upstream reservoir releases, if any, to augment the flow in the Potomac River for water supply withdrawal. ICPRB has predicted that releases from upstream reservoirs will likely not be needed for the Fall and Winter.

APPENDIX F

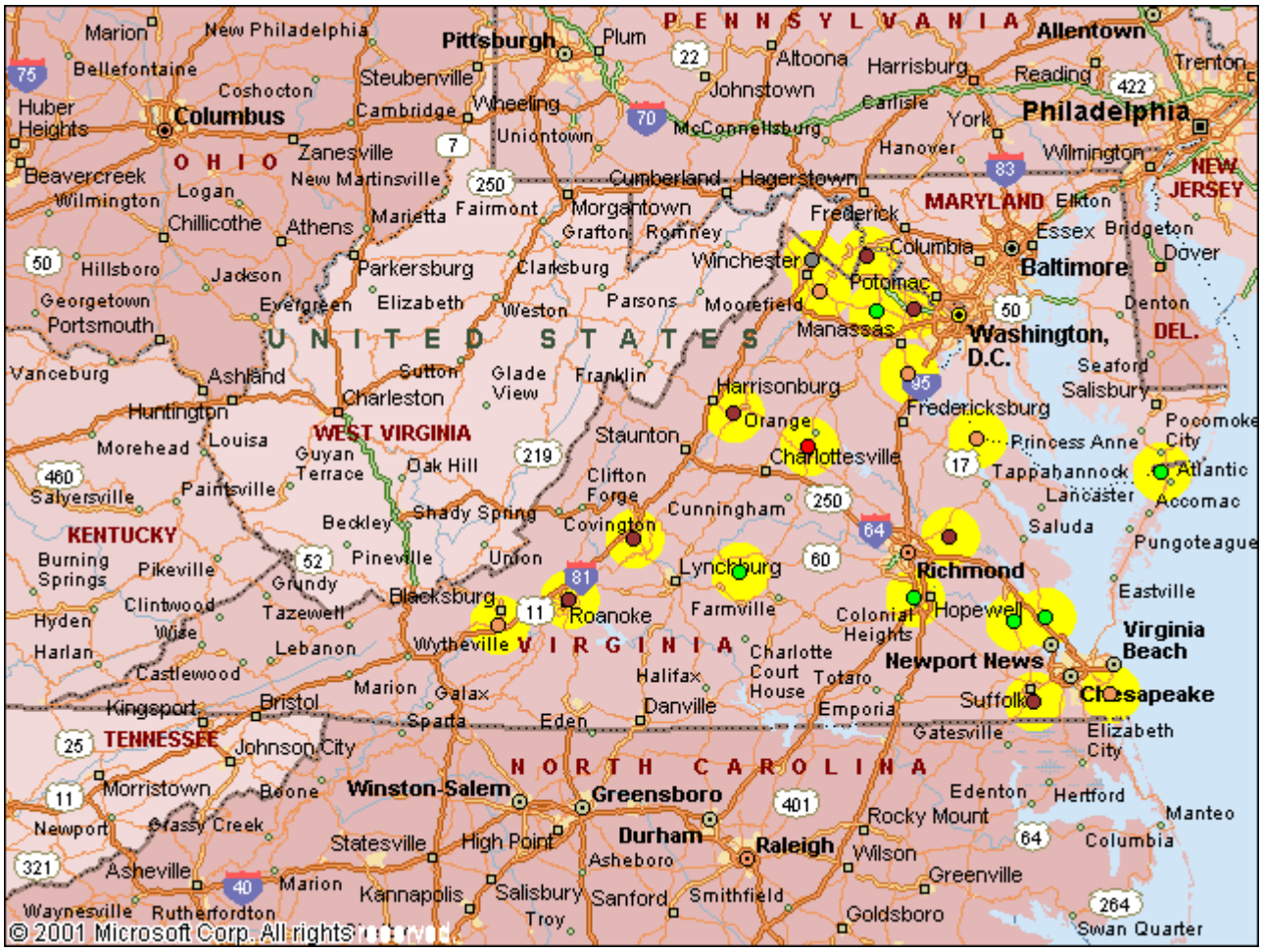

Streamflow conditions for 01/21/2008
in Virginia--daily values
Notes
Potomac
Rappahannock
York
James
Big Sandy
Kanawha
Tennessee
Roanoke
Chowan
Streamflow Statistics based on average flows
Daily
7-Day
14-Day
28-Day
Click on map or table to select River Basin
Current streamflow conditions
Dry
Normal
Wet
Not ranked

APPENDIX G
Drought Watch -- USGS State Information on Drought
Map of below normal 7-day average streamflow



APPENDIX H
Virginia Climate Response Network

January 21, 2008



Explanation - Percentile classes							
New Low	<10 Much Below Normal	10-24 Below Normal	25-75 Normal	76-90 Above Normal	>90 Much Above Normal	New High	Not Ranked